SMS/GPRS Printer
User Manual

V2.0

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1. Product introduction

1.1 Application about SMS/GPRS Printer

As a fast growing industry, buy via internet today is attracting more clients because of its many advantages such as convenience and time saving etc. as computer and mobile communication industry become more perfect technically and their application more popular. For example, if we deploy GSM wireless terminals with a built in thermal printer in takeaway shops and restaurants located in lanes and streets, customers can send food order information with computer or mobile, these information will be easily and quickly delivered to restaurants through computer networks and GSM wireless networks. Restaurants print out order contents, make and deliver food to customers in time as required. This not only brings much convenience for customers, but also makes a new sales channel for restaurants without increase of cost. Except food ordering, this internet buy can also be extended to other applications such as flower ordering and groceries ordering, bank services etc. We call this device SMS PRINTER.

1.2 Main functions and properties

Print SMS automatically：Set "Auto Print", when it receives a SMS, it will print the message automatically.

Print SMS manually：Set "Manual Print"，when it receives a SMS，operator can print the message by pressing a button.

Print GPRS order：The SMS Printer can take away a new order from server via GPRS, then print it out.

Phone function：you can make and receive a call.

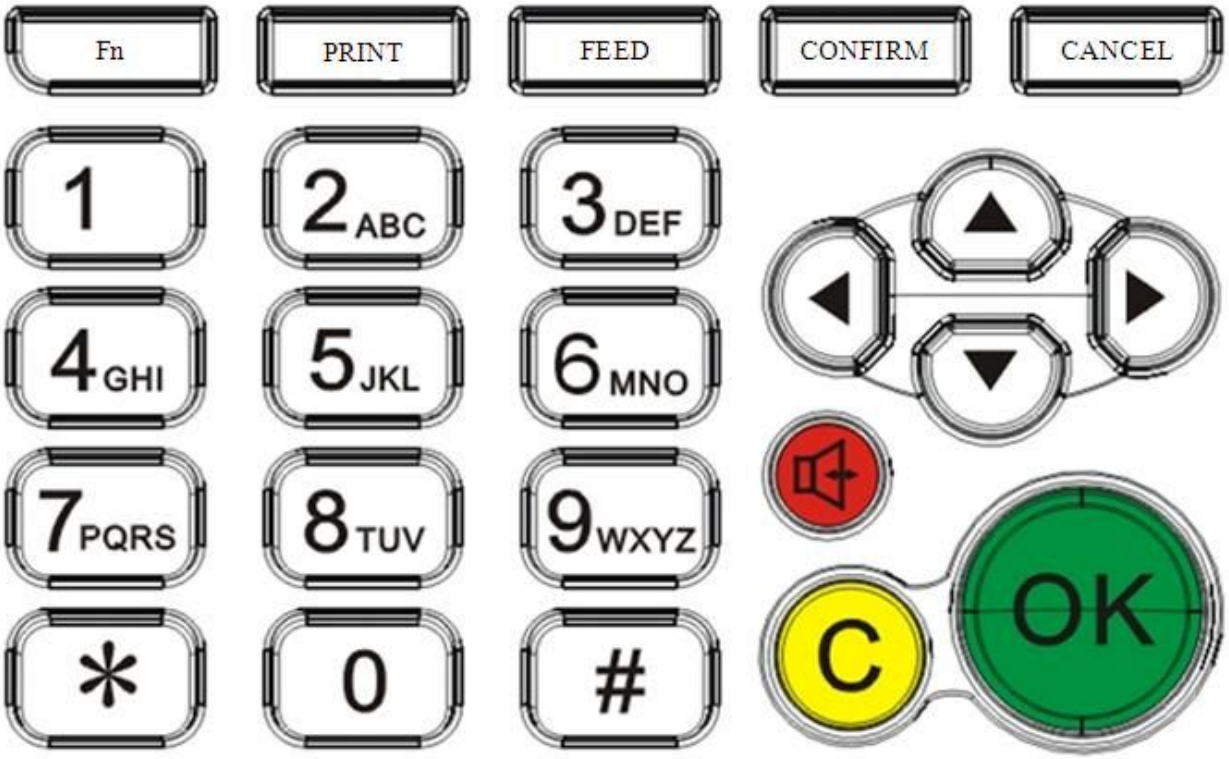
1.3 Package list

	Number	Size	Remarks
SMS Printer	1	27cm*24cm*11cm	
Antenna	1	11.2cm	
User manual	1		For VIP clients
AC adapter	1		9V,3A
Battery	1		1500MAH
USB cable	1		
Thermal print paper	1		

1.4 Specification

	Item	Specs
1	Access mode	GSM
4	Frequency	GSM850 869-894MHz E-GSM900 925-960MHz DCS1800 1805-1880MHz PCS1900
5	Sensitivity	-104dbm
6	RF transmitting frequency	GSM850 824-849MHz E-GSM900 880-915MHz DCS1800 1710-1785MHz PCS1900
7	Transmitting power	GSM850 33 dBm ±2 dBm E-GSM900 33 dBm ±2 dBm DCS1800 30 dBm ±2 dBm PCS1900 30 dBm ±2 dBm
8	Antenna gain	2.5dbm
9	Temperature	0℃～50℃
10	Print	Thermal printing (57*50)
12	Printing speed	At least 60mm/sec.(480 dot line/sec.)
13	Printing range	48mm
14	Printing vertical row	16（Chinese）32（English）
15	Printing longevity	50 Km

1.5 Button function introduction



Button	Function description
Fn	Fast key，press the key to enter into menu "order management".
Print	In idle status, press the key3 seconds, it will print test page. When it is set "manual print" and receives an order, press the button to print a new order.
Feed	Move the paper forward
Confirm	Press the key to confirm last operation or enter into next menu.
Cancel	Cancel the last operation or return to last level of the menu.
0-9	Digital keys，used to dial, edit message etc.
*	* key, you can input different symbol, such as ? /, \ ( ) etc. when setting up
#	#key. Used to change input method when editing message.
▲	move the cursor up in operation to select the last item of menu.
▼	move the cursor down in operation to select the next item of menu.
▶	Move the cursor back in operation to add or delete, also used to adjust volume during call connection.
◀	Move the cursor forward in operation to add or delete, also used to adjust volume during call connection.
	Hand free button. Used to make or receive a call
C	Function key. Usually used to reject an order.
OK	Function key. Usually used to accept an order.

2. Installation

2.1 Insert SIM card

Open the small cover in shape of “凸”at the bottom of the SMS Printer, insert the valid SIM card.

2.2 Install the thermal print paper

Open the dome cover at the top, install the thermal paper.

2.3 Install antenna

Connect the antenna to the antenna interface at the left side of the sms printer, screw it clockwise.

2.4 Power on

Connect one end of AC adapter to the device and another end to 220V AC socket, move the switch at the back of the device at the position of "ON", the device is on and display version number, then it will search wireless network, when succeeds, it will enter into idle state and display company's logo.

2.5 Screen Display in Standby Mode

3. Menu and its configuration

In standby mode, press “confirm” , then press ▲▼ to select:
SMS Printer－Phone book—Messaging—Call Center－organizer－settings－User Profiles.
Select “settings” and press “confirm”, you can change “time and date”.
Select “SMS Printer” and press “confirm”, input password 123456, you can enter into menu of sms printer.
The SMS Printer menu includes:
(1) Display Setting: Includes “Logo” and “Idle Screen” display. (2) Print Setting: Page Header, Page Footer, etc.
(3) System Setting: Set ResID, select SMS or GPRS mode.
(4) SMS Orders: Must set SMS center number, that is order sender’s number. (5) GPRS Orders: Set GPRS parameters
The following table is detailed description of menus.

3.1 Configurations for SMS Users

For SMS users which use SMS to deliver food order, select SMS mode. Configure SMS center number in the menu which is order sender’s number, that is SMS gateway number.
If you use your mobile to do the test, then your mobile’s number is SMS center number. With this configuration, the SMS printer will only accept the short message from SMS center to prevent receiving growing garbage messages.

3.2 Configurations for GPRS Users

For GPRS users which use GPRS to deliver food order, select SMS mode. GPRS parameters include:
(1) GPRS open time: You can set 9:00, GPRS will work from this time. (2) GPRS end time: You can set 22:00, GPRS will end after this time.
(3) GPRS check interval 30s,40s,60s:The device will send commands to server to fetch order data with this interval.
(4) IP address: Server’s fixed IP address or WAP Proxy IP of local operator. (5) PORT number.
(6) APN: For China Mobile, it is CMNET.
(7) GPRS UserName: In China, not necessary. (8) GPRS Password: In China, no password.
(9) FILE PATH: File path of new orders in your server.
(10) Call Back URL：File path of order reply in your server.

Note:
Press “#” button to change input method such as “ABC”, “abc”,”123”.
Press “＊” to input special symbols such as ／：？

3.3 Menu details

Menu	Menu 1	Menu2	Menu3	description
SMS Printer	Display Setting	Logo Setting		Logo display when power on，32 letters at most.
		Idle Screen Display		Logo display in idle status，14 letter at most.
	Print Setting	Page Header		Set up ticket header. 64
		Page Footer		Set up ticket footer，up to 64 letters.
		Auto Print	Auto	Auto print when receiving a new order.
			Manual	When receiving an order,
		Print Date	Enable	Print date and time.
			Disable	Not print date and time.
		Print Sender Number	Enable	Print sender's number.
			Disable	Not print sender's number.
		Print Count	1,2,3,4	Set bill number to be
	System Setting	RES ID		Set device ID or restaurant ID (shop ID)； when RES_ID=*, this is a general sms printer
		Enable Dial	Enable	
			Disable	
		Password		Password to enter into Menu. Initial
		Connection Mode	SMS mode	
			GPRS mode	
	SMS Setting	SMS Center Number		SMS Printer only receive and print the message from this number. It is usually the number of SMS gateway, or your mobile's number when

				SMS Printer from receiving many garbage message. If set *, it will receive sms
	GPRS Setting	GPRS Open Time	09:00	Starting time when a sms printer begins to get new order from server via
		GPRS End Time	22:00	Ending time when sms printer will stop to take orders from server via
		Telephone Number		Back up
		GPRS check interval	30s、40s、60s	The time interval with which the sms printer tries to take new orders from server periodically. For example, 30s, this means sms printer will try to get orders from server every
		IP		IP address of server
		Port		Server's port
		APN		Server's gateway
		UserName		GPRS user name
		Password		GPRS password
		File Path		New order path in server
		Callback Path		File path in server for reply message
	Order Manage	Confirmed [N]	Order 1	[N] mean the total number of accepted orders
			Order 2	
			Order 3…	
		Rejected [N]		[N] mean the total number of rejected orders
Phonebook	Add new contact	Select	Name	Add contacts name
			Number	Contacts' phone number
			Caller ring	Ring tone for incoming call.
		Phonebook settings	Preferred storage	Prefer to store phone
			My number	
			Extra numbers	Set some prohibited

			Memory status	
			Copy contacts	Copy phone number from SIM to phone or
			Move contacts	Move phone number from SIM to fixed phone or from
			Delete all contacts	Delete all number in SIM and fixed phone
Messaging	Write message	Send to		
		Input method		
		Advanced		
		Save to Drafts		
	Inbox	View		
		Reply by SMS		
		Call sender		
		Forward		
		Save to Phonebook		
		Delete		
		Delete all		
	Drafts	View		
		Send		
		Edit		
		Delete		
		Delete all		
	Outbox			
	Sent messages	View		
		Forward		
		Delete		
		Delete all		
	Delete messages	Inbox		
		Drafts		
		Outbox		
		Sent messages		
		All messages		
	Message settings	Profile settings	Profile 1	
			Profile 2	
			Profile 3	
			Profile 4	

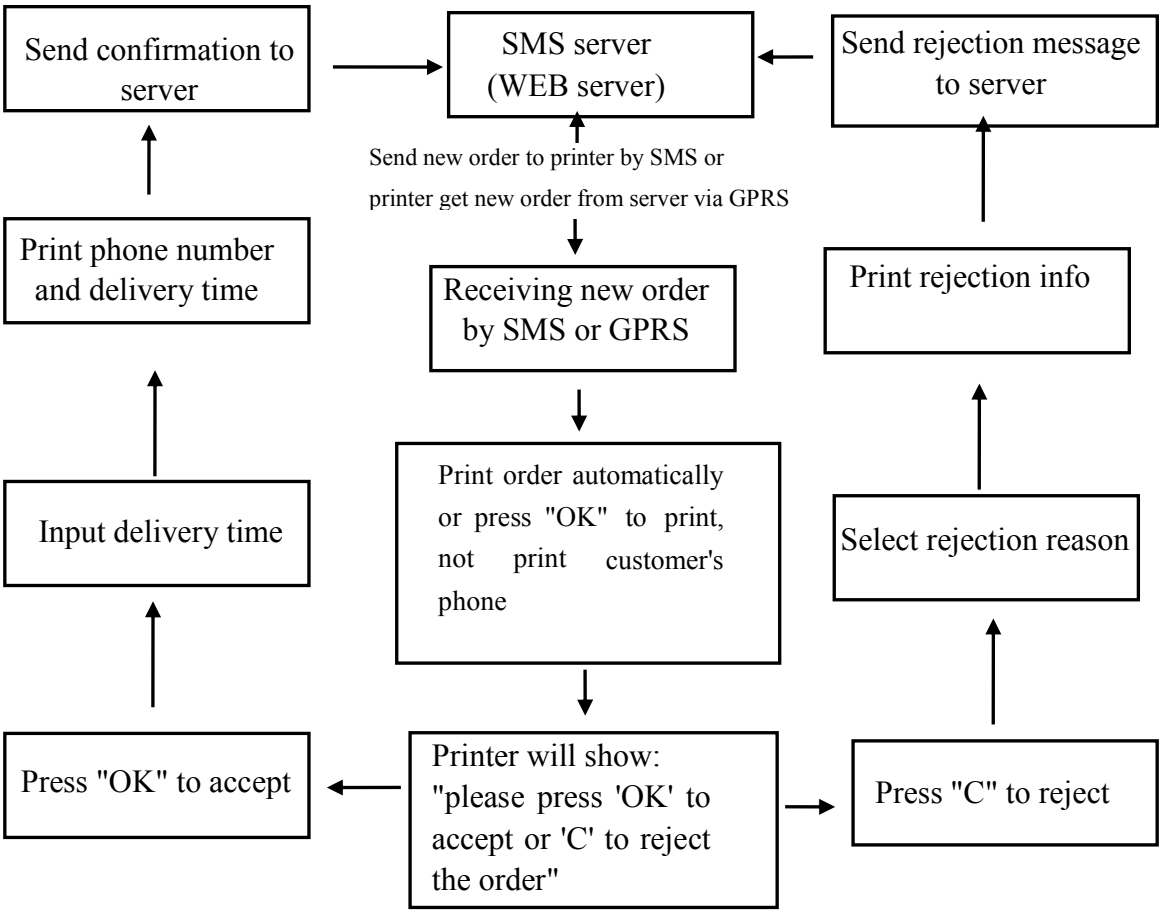
		Common settings	Delivery report	
			Reply path	
			Save sent	
		Memory status	SIM	
			phone	
		Preferred storage	SIM	
			phone	
		Preferred connection	PreferGPRS	
			PreferGSM	
			GSM Only	
Call center	Call history	Missed calls	View	
			Call	
			Send text	
			Save to phonebook	
			Edit before	
			Delete	
		Dialled calls	View	
			Call	
			Send text message	
			Save to phonebook	
			Edit before Call	
			Delete	
		Received calls	View	
			Call	
			Send text message	
			Save to phonebook	
			Edit before Call	
			Delete	

		Delete call logs	Dialled calls	
			Missed calls	
			Received calls	
			All calls	
	Call settings	Advanced settings	IP dial	
			Call time Remind…	
			Answer mode	
Organizer	Alarm	00:00		
	Calculator			【▲】(＋)【▼】(－) 【▶】(×)【◀】(／)
Settings	Phone settings	Time and date	Set home	
			Set time / date	
			Set format	
		Schedule power on / off	00:00 00:00	
		Language	English	
			Chinese	
		Pref.inputmethod	ABC，abc	
			Simplified Chinese stroke	
			Smart Pinyin	
			Numeric	
		Contrast		
		Misc. settings	LCD backlight	
	Network settings	Network selection	New search	
			Select network	
			Selection mode	
		GPRS connection	When needed	
			Always	
	Security	SIM security	PIN lock	

	settings		ChangePIN	
			ChangePIN2	
		Phone security	Phone lock	
			Change password	
		Auto keypad lock	Off	
			5sec-5min	
	Connectivity			
	Restore factory Settings			
User profiles	Caller ringtone	change		
		save		
	Ringtone volume			To use 【◀】【▶】to adjust volume.
	Message	change		
		save		
	Message volume			
	Key Tone	on		
	System Tone	on		
Services				

4. Order receiving and processing

4.1 Order receiving and processing flow


Send confirmation to server
SMS server (WEB server)
Send rejection message to server
Send new order to printer by SMS or
printer get new order from server via GPRS
Print phone number and delivery time
Receiving new order by SMS or GPRS
Print rejection info
Print order automatically or press "OK" to print, not print customer's phone
Input delivery time
Select rejection reason
Press "OK" to accept
Printer will show: "please press 'OK' to accept or 'C' to reject the order"
Press "C" to reject

4.2 Order printing

If setting "auto print", the sms printer will automatically print a received order. If setting "manual print", when receiving a new order, the sms printer will print it after operator press the button "PRINT".

4.3 Prompt for a new order

When an order comes:
(1) Usually you are supposed to select “auto print”, when a new order comes, it will print automatically, the voice is large enough to prompt you to process the new order.
(2) It will ring to push you to deal with the order. The time interval between ring can be adjusted by imputing #*20ttt#. For example, input #*20010#, this means the ring plays every 10 seconds which includes ring time. Press any key to stop the ring.
Furthermore the ring tone and its volume can be adjusted, press “Confirm”, press ▲▼ key to select “User Profiles”, select “Message” tone and message volume.

4.4 Order processing

When an order comes to the device, if the device are processing other orders ahead of it, it will line. When it is at its turn, usually it prints out automatically, and wait for you to process.

1. If you accept the order, press the button 'OK', input delivery time. For example，delivery time is 12:20, then input 1220. Then press “confirm”. The SMS printer will reply a message automatically: “status=accepted&restid=20&ordernumber=123&deliverytime=12:20” to server.
2. If you reject the order, press the button “C”, select or input “reject reason”

（1）“OUT OF DELIVERY REGION”
（2）"BUSY"
（3）"NO INGREDIENTS"
（4）"UNKNOWN ADDRESS"
（5）OUT OF DELIVERY TIME REQUIIRED
（6）TRAFFIC JAM
（7）Reason defined by customer (not more than 16 letters)

Press the ’’confirm’’, the device will reply a message automatically: ‘‘status=rejected&restid=20&OrderNumber=123&RejectReason=12:20’’

If you press a wrong button, for example, you press “C” for accepted order by mistake, then you can press “cancel” to return. Then press “OK” to accept. The reply contents to server can be customized based on your requirements.

Some clients don’t like to input “delivery time”, or “reject reason”, only press “OK” to accept or “C” to reject, we have another version to support this requirements.

4.5. Order management

Restaurant guy can inquire the processed orders by pressing the button Fn at the top left side of the device.

1. Confirmed[N]: mean there are total [N] accepted orders.
2. Rejected[N]: mean there are total [N] rejected orders.

The maximum number of accepted orders reserved in device is 30. The maximum number of rejected orders reserved in device is 20. For more processed orders, new orders will replace old orders.

4.6. Order processing when out of paper

(1) When a red bar comes on thermal paper, it means the paper will be finished,

you can install a new roll of paper.
(2) When out of paper, the device alerts by honking. If you have not pressed “OK’ or “C”, you can switch off printer, install thermal paper, switch it on, the printer will reprint the order, you can continue to process; if you have pressed
‘OK” or “C”, wish to print one more copy, press the button ”Fn” to find the processed order in the menu “order management”, print it out by pressing the button “PRINT”. Don’t forget to press the button “CANCEL” to quit the menu after finished.
(3) Change thermal paper with a new one when printer is on, but the ticket is not continuous.

5. Order format example

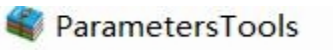
The following is order format sample for reference.
Rest_id *Order Type*Order No*Quantity,Food1, Amount; Quantity,Food2, Amount; Quantity,Food3, Amount*Delivery Chg; CC+Handeling fees;Total; Customer Type;Customer Name; Customer Address;Requested For; Previous Number of orders;Payment Status; Payment Card No;Customer Phone* customer comments# Order Type=1, Delivery; Order Type=2, Collection.
Customer Type=4, Verified; Customer Type=5, Not Verified. Payment Status =6, Order paid; Payment Status=7, Order not paid

The following is one of the examples of contents of a practical order for a restaurant with Rest_id=5, Order type is 1, Order number=123
#5*1*123*2,prawn,8;3,Chicken,4.5;1,lamb,8*1.00;0.50;22;4;eric_chen;111,5 Ave,SW,Suite 339,Calgary;20:15 16-09-2012;20;6;paypal;07922911811* can I have soy sauce?#

New order path in server:
http://www.fatcom.com/gprsorderfile/php?restid=5&password=345678
Order reply (confirmed/rejected) path in server:
http://www.fatcom.com/confirm.php?
In device, you only need to set http://www.fatcom.com/confirm.php?
(1) For accepted order, the final call back path URL is
http://www.fatcom.com/confirm.php?status=accepted&restid=5&ordernumber=123&deliverytime=12:20
(2) For rejected order reply path in server, the call back URL is：
http://www.fatcom.com/confirm.php?status=rejected&restid=5&ordernumber=123&reason=busy
The part after “?” in red color is automatically added by device.
The printed ticket is as follows:

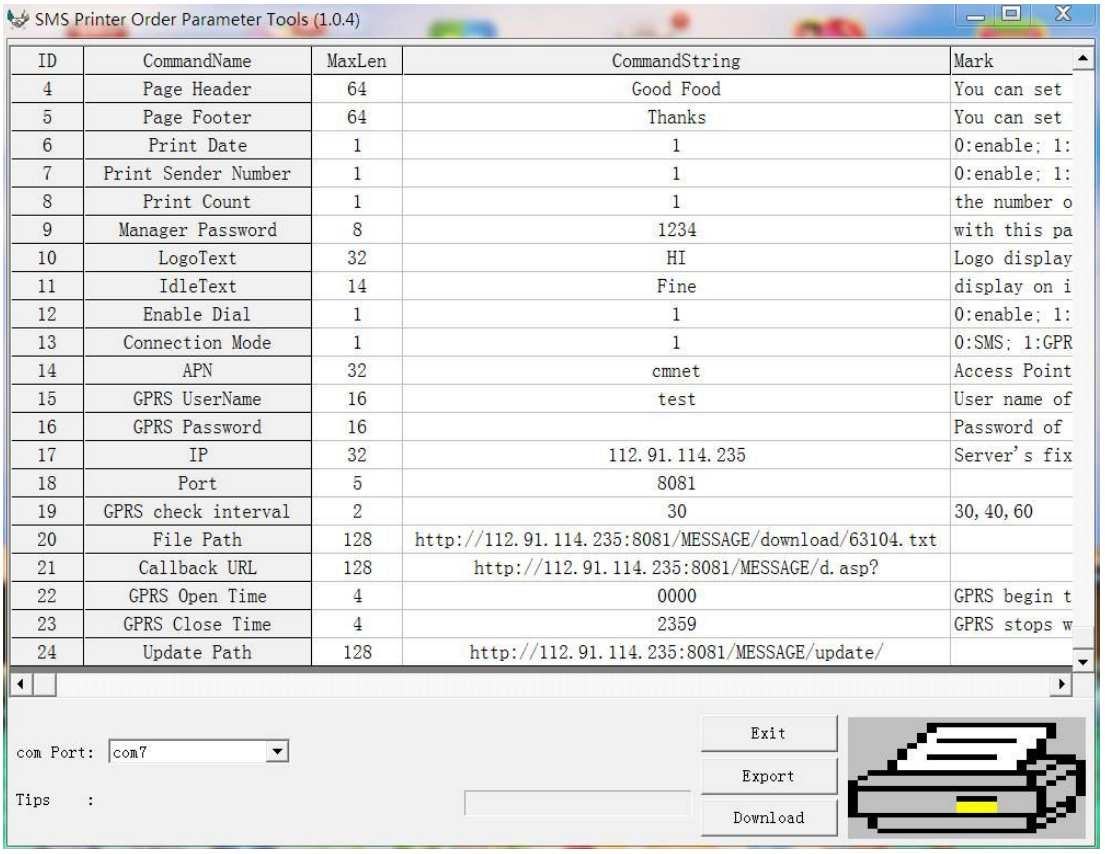
6. How To Use Parameters Tools

6.1 Parameters making and download

(1) Decompress file 

(2) Click into folder “Parameters Tools”

(3) Click “SMS Printer setting Parameters Tools.exe”

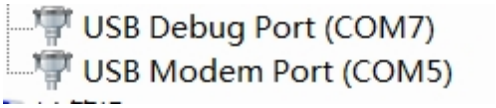


ID	CommandName	MaxLen	CommandString	Mark
4	Page Header	64	Good Food	You can set
5	Page Footer	64	Thanks	You can set
6	Print Date	1	1	0:enable; 1:
7	Print Sender Number	1	1	0:enable; 1:
8	Print Count	1	1	the number o
9	Manager Password	8	1234	with this pa
10	LogoText	32	HI	Logo display
11	IdleText	14	Fine	display on i
12	Enable Dial	1	1	0:enable; 1:
13	Connection Mode	1	1	0:SMS; 1:GPR
14	APN	32	cmnet	Access Point
15	GPRS UserName	16	test	User name of
16	GPRS Password	16		Password of
17	IP	32	112.91.114.235	Server's fix
18	Port	5	8081	
19	GPRS check interval	2	30	30,40,60
20	File Path	128	http://112.91.114.235:8081/MESSAGE/download/63104.txt	
21	Callback URL	128	http://112.91.114.235:8081/MESSAGE/d.asp?	
22	GPRS Open Time	4	0000	GPRS begin t
23	GPRS Close Time	4	2359	GPRS stops w
24	Update Path	128	http://112.91.114.235:8081/MESSAGE/update/	

(4) Fill in parameters

(5) Connecting SMS Printer to computer with USB cable and switch on printer.

(6) In device management of your computer, check USB port number, for example



In this case, select COM port as

(6) If Click "Export", the parameters will be exported and stored in a file "Config".

(7) If Click "Download", the setting parameters will be downloaded to SMS Printer.

6.2 How to print Page Header and Page Footer

Assuming the following is the ticket header you have designed :

WWW.GOODFOOD.COM

Pizza Place

123 North Load

Shen Zhen

Then you can fill in the following contents in the item of page header in the parameter tools:

WWW.GOODFOOD.COM/r/s/LPizza Place/r/s/L123 North Load/r/s/LShen Zhen

/r: change line
/s:small fonts
/l: big fonts
/L: Alignment at Left
/R:Alignment at Right
/C: Alignment in Center

7. Downloading firmware and settings by air

Until now, SMS Printers from other suppliers can only download orders in server via GPRS, but have no functions to download firmware and settings parameters via GPRS. This may cause problems when you have deployed hundreds of SMS printers in restaurants and wish to update their firmware.

With our printers, what you need to do is:

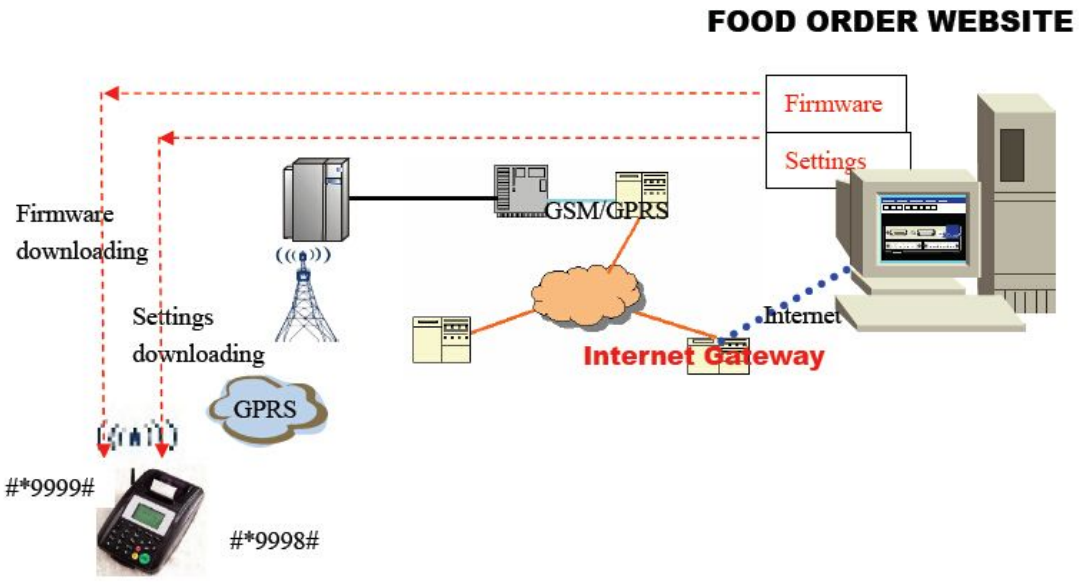
(1) Make GPRS settings correctly. For GPRS users, the printer has the correct settings inside, this step can be canceled.

(2) Put new firmware mre.vxp or config.ini in your update file path. For example, if order file path is http://www.abc.com/gprsprinter/5.txt, then you can set update file path is http://www.abc.com/gprsprinter/update/ CONFIG.INI can be created by parameter tools by clicking "export".

(3) Press #*9999# on printer, the screen will pop up your update file path http://www.abc.com/gprsprinter/update/, then press "confirm", it will automatically download firmware via air from the server. For sample test, the default update path is our server's path, http://112.91.114.235:8081/smsprinter/update/ , you can change to your file path for the first time. After that, it will keep your file path. For quantity orders, we can put your update file path in printer as default.

(4) Press #*9998# on printer, the printer will download config.ini.

So what you need to do is just put new firmware or new config in update file path, then press #*9999# to download firmware or #*9998# to download config.



8 Phone Function

8.1 Making a call

Method 1：Press Hand free button ，dial phone number, after finished, waiting for 3 S, the device will automatically send the number.
Method 2：Dial phone number，click "CONFIRM" button, select“Call” in menu。

8.2 Receiving a call

When there is a incoming call, it rings, and displays caller's number on screen (If the caller's number is in phonebook, it displays caller's name). There are two ways to pick up the call.

Method 1：press the hand free button to connect.
Method 2：click "CONFIRM" button, select “Answer” in menu.